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TECHNICAL REPORT: STREAMLINING TO MEET THE STANDARDS

AN EVALUATION OF WAREHOUSING IN KYRGYZSTAN

June 2011

This publication was produced for review by the United States Agency for International Development. It was prepared by consultant Pierre de Vasson and Dave Burrows of the AIDS Project Management Group, for the Quality Health Care Project in the Central Asian Republics.

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AN EVALUATION OF WAREHOUSING IN KYRGYZSTAN

DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development (USAID) or the United States Government

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- Saru: Mr. Baysalov Imanku, director, Republican Center for Adult TB;
- Karakol: Mr. Bakyt Beishelaev, director, TB Center; Dr. Sharshekan Ogoeva, AIDS Prevention and Control Center;
- Osh: Dr. Elmira Narmatova, regional AIDS prevention center; Mr. Akjol Anarbaev, regional (oblast) Center of Epidemic Sanitary Surveillance; Dr. Akylbek Baysalov, regional TB Center, Ms. Aygul Sadieva, regional Methadone Center of Narcology;
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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
APMG	AIDS Project Management Group
ART	Antiretroviral Therapy
CCM	Country Coordinating Mechanism
CSW	Commercial Sex Workers
FLD	First-Line Drugs
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
M+E	Monitoring and Evaluation
MoH	Ministry of Health
MST	Methadone Substitution Therapy
NGO	Non-Governmental Organization
OST	Opiate/Opioid Substitution Therapy
PHCS	Primary Health Care Strengthening
PR	Principal Recipient
PSM	Procurement and Supply Management
SLD	Second-Line Drugs
TB	Tuberculosis
TPL	Third-Party Logistics
USAID	United States Agency for International Development
WHO	World Health Organization

DEFINITIONS

To provide an overview of the existing warehousing structures in Kyrgyzstan, we distinguished between:

- Local stores (LS): a room or a cabinet next to a patient's room that includes shelves on which health products (including pharmaceuticals) and non-health products are stored in small quantities for local patients only.
- Storage facility (ST): a room or set of rooms that may or may not be separate from the main facility. They sometimes include shelves on which health products (including pharmaceuticals) and non-health products are stored in fairly large quantities. Storage locations may be central (in Bishkek), regional, or local, serving either local patients or broader regions.
- Warehouse (WH): a large space encompassing often one large open area, either independent from or adjacent to a main facility. It can sometimes include shelves on which health (including pharmaceuticals) and non-health products are stored in large quantities.

OBJECTIVES OF THE EVALUATION

- Visit most of the country's existing central and regional storage facilities for pharmaceuticals and other health products;
- Determine whether the facilities comply with WHO warehousing standards;
- Evaluate what investment is needed to attain compliance, or determine whether it would be more feasible to make use of commercial facilities,
- Provide recommendations to ensure that:
 - health products are stored and distributed in compliance with Good Storage Practices,
 - appropriate procedures and systems have been implemented to manage the distribution and forecasting of health products procured with Grant funds,
 - in cases where the same storage facilities are used as the previous PR are used, describe:
 - *all contractual obligations between the PR and the storage facilities,*
 - *a functional Logistic Management Information System (LMIS) for collecting and reporting data on the consumption of health products and the number of patients on treatment;*
- Provide a detailed report.

EXECUTIVE SUMMARY

UNDP, the Principal Recipient of the Global Fund to Fight AIDS, TB and Malaria's HIV and TB grants to Kyrgyzstan, asked Quality Health Care Project in Central Asia, funded by USAID, to examine and make recommendations on the warehousing used for products purchased under these grants. Consultants from AIDS Projects Management Group carried out the evaluation for the Quality Project in June 2011.

Central storages facilities in Bishkek are run by specific agencies, are spread out across the city and have no association with the central hospital warehouse. A recurrent phenomenon is a basic insufficiency in storage space. This is related to the problem of decentralization, amounting to the following adverse effects: inappropriate selection of satellite storage facilities; mass waste; potentially undetected compromised products; lack of inbound product inspection; poorly budgeted and sporadic distribution systems to the regions; underreporting of local stockouts of essential medicines and postponed health services; local overstocking and credible over-forecasting; all of which highlight the acute need for increased financial support.

Aside from few exceptions, interior and exterior building conditions are relatively acceptable, even though they fail to fully comply with (WHO) standards for warehousing of medicines and health products. APMG consultants also believe the likelihood of earthquakes fails to receive sufficient consideration. A trend is evidenced by which conditions at storage facilities improve the closer they are to points of care. These are usually managed by nurses or health assistants. In remote locations, storage receives less attention from trained staff, leading to unacceptably low hygiene levels. Storage knowledge, inventory layout and management are limited and are often only partially implemented. Shelving and labeling could be greatly improved.

In the regions, the situation is similar, but on a lower scale. Also, the limited equipment for mechanical temperature management and the lack of budget for storage renovation are critical concerns. An alarming observation, both in the regions and in the capital, is that cold-chain medicines are almost entirely stored in domestic fridges. On top of that, they are too few and lack space.

As for the UNDP, the systemic absence of inventory information, precise past volume and inaccurate forecasting have become challenges for optimized central procurement as well as timely and adequate delivery. It also constitutes a potentially vicious cycle.

In general, the numerous concerns outlined leave any prospective scale-ups risky and questionable since WHO standards are not met. However, we firmly believe that the implementation of the recommendations below has the potential to transform Kyrgyzstan's warehousing structures to a degree that is advantageous for the country itself and UNDP national operational effectiveness.

1.1 HIGH-LEVEL RECOMMENDATIONS

To the APMG consultants, it appears feasible to merge all central storage facilities into a single location. We would recommend a centralized temporary solution including:

- 1) clearing,
- 2) warehousing and inventory management, and,

- 3) regional distribution performed by a commercial third-party logistics company. Meanwhile, a public storage facility might be found or built for future permanent warehousing. The application for a Health System Strengthening grant might be envisaged at this stage.

Technical assistance for planning, inspecting current stock, and transitioning stock from the central facilities to a principal warehouse will be needed to successfully manage these tasks. After the transition, APMG suggests the return of the six empty storage facilities to their respective national agencies.

Accompanying this change, UNDP should gradually rationalize procurement schedules and quantities. Soon after, it will be time to optimize inbound shipment frequency and minimize storage space requirement variation.

It is strongly suggested that training be granted to local inventory specialists in storage compliance, inventory layout, and management. Concurrently, the UNDP should provide standardized monitoring equipment and stock management guidelines. Comprehensive technical assistance for seismic-risk assessments, storage-space search, and renovations including installation of metal shelving, should accompany those steps.

Mechanical temperature management (air conditioning and heating) should be offered to local storage facilities and two domestic fridges replaced by one professional fridge, the delivery of which should include installation and staff training.

It will then be the task of UNDP to optimize outbound distribution, continually readjust local and central stock levels, retrain local inventory specialists, re-optimize inbound shipment frequency and re-minimize storage space requirement variation.

On methadone, the UNDP should take the lead and ensure its storage and distribution meets WHO standards as strictly as the UNODC's controlled-substance security standards. This can be eased if the decision is taken to shift procurement of powdered methadone into liquid form and modify storage locations to accommodate the new volume.

2. DETAILED FINDINGS

2.1 CENTRAL STORAGE CAPABILITIES IN THE CAPITAL

2.1.1 CURRENT FACILITIES IN BISHKEK

The APMG consultant visited six agencies in charge of eight storage sites:

- **Malaria:** The Department of Sanitary and Epidemiological Surveillance has a refrigerated room (**Malaria ST fridge**), and a separate storage room for insecticides (**Malaria ST insecticides**).
- **TB:** The National Center of Phthisiology runs a refrigerated room for SLD (**TB ST fridge**), several independent fridges for laboratory products inside the labs, and a storage room for non-refrigerated FLD (**TB ST#1**). In the nearby city of Voroncovka, we inspected two storage sites for non-refrigerated FLD and SLD (**TB ST#2** and **TB ST#3**) in independent buildings.
- **HIV/AIDS:** The National AIDS Center runs principal storage in its basement (**HIV ST#1**) and two stores on patient levels. There are also fridges and freezers used in HIV testing.
- **Harm reduction:** The National Center for Narcology operates a storage location for Methadone (**Methadone ST**) and a large warehouse (**HR WH#1**) for harm-reduction paraphernalia. The MoH, a former Principal Recipient, also rents a commercial storage location (**HR WH#2**) for stocking harm-reduction paraphernalia.

2.1.2 LOCATIONS

Central storage facilities in Bishkek are assigned according to the agency responsible for each specific disease and are thus not centralized but are spread out across the capital.

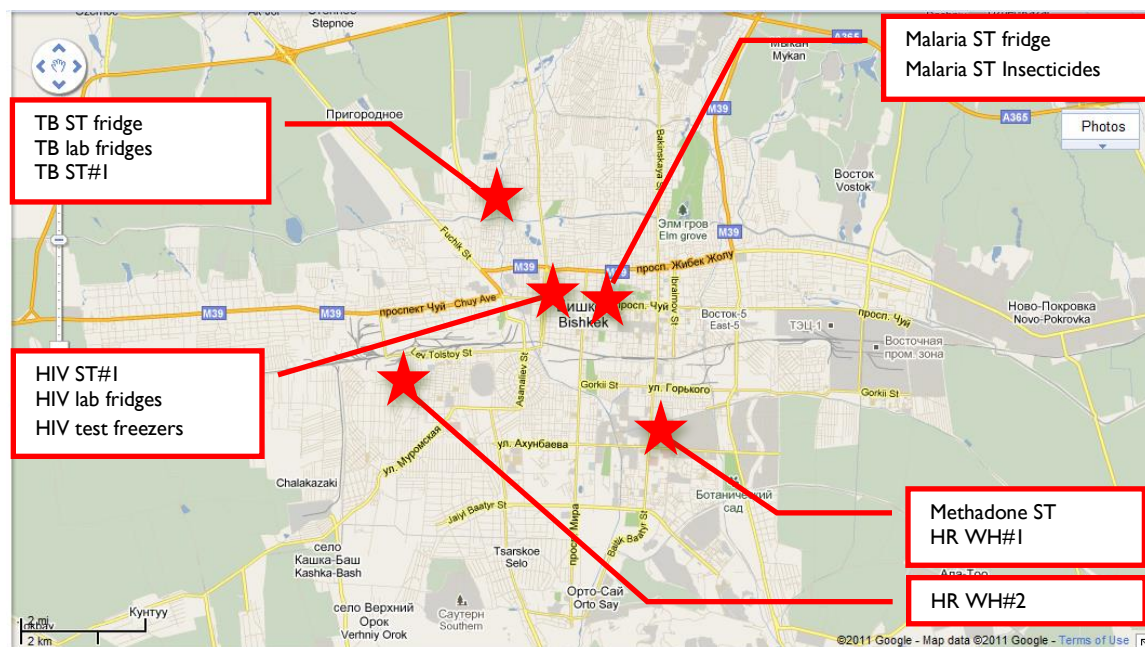
As the National Center of Phthisiology lacks space, a former sanitary department site in Voroncovka was used to host two storage sites (**TB ST#2** and **TB ST#3**).

The following map (Figure 1) pinpoints the various Bishkek facilities.

FIGURE 1: LOCATIONS OF CENTRAL STORAGE FACILITIES IN BISHKEK



TB ST#2 TB ST#3



2.1.3 CONDITIONS AT CENTRAL STORAGE FACILITIES IN BISHKEK

Table 5 in **Annex B** provides a detailed list of conditions at central storage facilities. To illustrate our findings, several photographs of each facility visited are provided in **Annex D**. Their quality was assessed on the basis of building selection, exterior and interior conditions, product preservation, shelving, stocking and layout methods, labeling, inventory and item movement recording, and cleanliness.

2.1.3.1 BUILDING SELECTON

Most storage facilities are located in appropriate buildings. If not placed directly in treatment or care centers, some are in adjacent buildings within relatively easy reach. However, this is not the case for two facilities in Voroncovka, one on the ground floor of an inhabited apartment building (TB ST#2) and the other in an abandoned building without electricity (TB ST#3). APMG heard justification that these locations belong to the National Center of Phthisiology, are inexpensive, immediately available, and not too far from the capital. Both are in transition ahead of being moved to the currently at-capacity Bishkek facility. The second problematic site is commercial space rented by the MoH for storing harm-reduction paraphernalia (HR WH#2), which has no heating, cooling, or even a concrete floor. Although the company provides a large and convenient space, storage facility HR WH#2 is inappropriate for health products, which would include harm-reduction paraphernalia.

2.1.3.2 EXTERIOR CONDITIONS

Satisfactory conditions prevail at most of the buildings used for storage. Except for TB ST#3, no major issues were seen in building envelopes. The engineer who accompanied the APMG consultant said he would submit a report that provides technical reviews for most of the facilities. Given the specific seismic situation of Kyrgyzstan in general¹, and Bishkek in

¹ "According to the Global Seismic Hazard Assessment Program (GSHAP), most of Kazakhstan, Kyrgyzstan and Tajikistan, including their capital cities, lie in a region with very high seismic hazard ..." The nations "are exposed to a

particular, he has been asked to comment on the earthquake resistance of storage facilities in independent buildings. We think that the likelihood of quakes receives insufficient too little consideration.

2.1.3.3 INTERIOR CONDITIONS

Storage interiors are generally in good condition. APMG believes that the extension of local stores into the central storage facility has lead to confusion between central and local stores. The confusion has increased with the rise in product volume. This is the case for the National AIDS Center with two or three local stores and drug cabinets in patient areas, as well as in three storage facilities at the National Center of Phthisiology. As a consequence, storage on the premises, often at the ground floor and of limited dimension, is insufficient. Similarly, local stores are used to compensate for the lack of space at central storage facilities. Finally, we found that space is sometimes unsuitably used for local stores, especially when they are run-down (HIV SL#1, the second room of storage #2 was formerly a toilet). Storage facilities with any source of odor, humidity, or pests, fail to comply with basic phytosanitary requirements for stocking medicines and health products. Such a space is just not suitable for storage unless it is renovated, including installation of proper closures on doorways, windows, and any other opening.

2.1.3.4 PERMANENT AND EMERGENCY PRODUCT PRESERVATION

It is noteworthy that not all storage facilities in Bishkek have mechanical temperature management (air conditioners or heaters). Although temperature is often monitored and intense sunlight excluded, temperature logging is carried out only sporadically. Emergency electricity generation (for refrigerated stock) is almost always absent, making a proactive rather than reactive approach to outages impossible. Hygrometric measurements ensuring that medicines are stored in dry places are systematically unavailable. Functional fire extinguishers are not always present, visible or well-placed. APMG consultants did not check the expiration or maintenance dates. In terms of security, most storage facilities and stores are equipped with secured windows, reinforced doors, and sometimes alarm systems. Secured windows and reinforced doors are always required. Alarms must be installed for storage facilities at independent buildings. Stable storage conditions and wastage preservation is imperative for storing medicines and health products.

2.1.3.5 SHELVING

Most storage facilities have custom-made wooden shelves, which are: fragile, easily damaged by moisture, difficult to clean, and can harbor insects and vermin. Metal shelves should be the norm and present the advantage of being transformable and adaptable in time. Poor layout also leads to a lack of space optimization, particularly important in the Kyrgyz case of limited space and funds. Shelves/cabinets are mandatory for stocking products by unit and facilitate error-proof selection. External unopened boxes (shippers) might not always require shelving. It is therefore broadly accepted to pile them on a wooden pallet (flat transport structure that supports goods) to a reasonable height (preventing humidity transmission from the floor).

These basic preservation procedures are not consistently being followed at the sites inspected. Failure to preserve product integrity can lead to damage and compromised materials. Despite

destructive earthquake (causing infrastructural damage) every three to five years, and a catastrophic one (causing infrastructural damage and death) every 35 years.” U.S. Geological Survey/USAID Seismic Hazard Mapping of Central Asia site: <http://nsmp.wr.usgs.gov/centralasia/about.html>

the prevalent quake risk noted, APMG found only once shelves tied together to lessen the risk of collapse (surprising best practice found in TB ST#2).

2.1.3.6 LAYOUT AND STOCKING

Spatial layout and the stocking methods are rarely adequate to ease inbound shelving and ensure good product location and fast item selection. Ergonomically, high turnover items should be stored in proximity while low-use products may be stored further away. Large and bulky items should be in an accessible area, while small items can be stored in a narrower area. Every stockpile should allow the prioritized inventory method of “First Expired, First Out”.

2.1.3.7 SHELF LABELING

Good shelf labeling is almost always absent, even though it is an absolute necessity. It can facilitate ease of replenishing and selection, prevent errors, and reduce wastage due to expired products. Visible and updated labels must designate each product that has its own expiration date with the following:

- product name;
- product category;
- expiration date; and,
- on-hand quantity.

We observed that the separation between different products/expiration dates is insufficiently clear. It may be acceptable to keep products in their original box, but adequate labeling is nonetheless imperative for storing medicines and health products with limited shelf lives.

2.1.3.8 INVENTORY TRACKING

The APMG consultant consistently found some kind of inventory movement records, all paper-based and thus inexpensive and pragmatic. Since there is no inventory management software, tracking the inventory on hand is also needed and this might be done employing the shelf labels.

2.1.3.9 CLEANLINESS

Good hygiene is the ultimate requirement for effective storage of medicines and health products. Inadequate storage facility selection, poor external and internal conditions (damaged doors and windows, holes, pipes), altered wooden shelves, trash and poor management of inventory and cleaning, all result in a lack of cleanliness. This high priority needs to be re-emphasized at all storage sites. It is therefore important to forbid the presence of plants and any kind of food at all times.

2.1.3.10 REFRIGERATION

For refrigerated medicines, the Center of Phthisiology is the only central site with a large refrigerated room (**TB ST fridge**) for medicines requiring refrigeration. Aside from this single case, all other central storage facilities, local stores and patient cabinets in Bishkek are not equipped with proper professional fridges but instead use domestic fridges. These are not spacious, robust, powerful, reliable, or temperature constant, nor do they display, precisely record or control temperature. The **TB ST fridge** is believed to be too small to accommodate its quarterly restocking. It was obvious to APMG that in patient wards, domestic fridges look neither professional nor empower medical staff, nor do they discourage the occasional storage of food. Although such fridges are good pragmatic solutions, APMG believes they: neither meet nor encourage good storage compliancy; fail to allow for temperature monitoring; augment the risk of breaking the cold chain; and, complicate inventory restocking.

2.1.4 CONSEQUENCES OF CURRENT CENTRAL STORAGE ORGANIZATION AND DISTRIBUTION SYSTEM

Storing conditions at multiple central storage facilities in Kyrgyzstan are suboptimal and may have serious consequences.

In the supply chain, the first step is product reception, clearance and inspection for:

- good condition;
- product specification, quantity, and price matched against procurement order and/or shipment receipt.

Currently, six national agencies are performing this task with untrained staff, and as such, are unable to yield desirable efficiency levels. To illustrate this, in **TB ST#3**, a large number of mislabeled boxes were found erroneously labeled as being in need of refrigeration). It would have been the role of a clearance inspector to spot it, take action, and prevent such a potentially harmful wrong label. Inbound wastage, unnoticed compromised or incomplete products, discrepancies against procurement order and shipment receipt, and missing quantities may or may not be voluntary, but are unfortunately part of the daily reality. It is very important to control and evaluate such inaccuracies.

Another example about improper inbound acceptance procedures, illustrated in **Annex G**, was found at the Osh Malaria Central Storage Center. The expiration date of the insecticide barrels was manually corrected, adding two years to the initial limit. It is the rule to refuse such mislabeled products, since manual corrections while pragmatic, cannot be accepted and could lead to confusion centrally and locally.

None of the six agencies can provide efficient inventory management or other reporting that supports good and timely monitoring, accurate forecasting and eventually enable good procurement. For the UNDP Procurement Unit, it is extremely challenging to efficiently procure without precisely knowing past usage, seasonality, potential wastage levels, current stock and future stock required. The risk of inaccurate, untimely and inadequate replenishment is therefore substantially elevated, creating a potential risk of spiraling adverse effects on the quality of care. The lack of trained staff and inventory specialists make the prospect for the UNDP could obtain this type of information in the near future even more unlikely. This is highly regrettable, given that such data is routinely required for a well-functioning Unit.

Wastage after improper storage is another large risk that exists in the capital. Storage facility **TB ST#3**, in an abandoned apartment building, and **HR WH#2**, in a large hangar with an earthen floor, have neither mechanical temperature management and control, nor permanent supervision. It is difficult to assess potential detrimental consequences of these two shortcomings for medicines such as non-refrigerated FLD and SLD or health products such as condoms and lubricants. However, it is widely known that pills are very sensitive to temperature variation and humidity. Latex is a very fragile material that does not tolerate extreme temperature fluctuations. Bishkek averages -5°Celsius in January and +25°C in July, with maximum temperatures ranging from between -10°C and +35°C. Brittle condoms bursting easily have been constantly and repeatedly reported in Kyrgyzstan. This is most likely attributable to improper temperatures during storage and is but one example among several.

These central facilities are neither authorized to provide regional distribution nor do they have capabilities, materials or human resources to do so. APMG has been told that the regional facilities have no choice but to pay from their own budget to transport material to central storage facilities. This logistical expense was not included in the GFATM proposal. As a result, staff coming to Bishkek for training and conferences often pick up supplies and bring them back to their offices. Some of the consequences of such practices are illustrated in **Annex F**, where

products have a greater chance of being mishandled, improperly stored, or simply lost. The potential risk of compromised or damaged products is very high, especially when the practice goes unnoticed. At this point, the wastage impact is difficult to quantify. Under said conditions, attaining satisfactory replenishment and proper inventory management of regional facilities and local stores is nearly impossible. This leads to a high risk of stockouts in essential medicines, which of course is highly problematic for HIV/AIDS patients and TB and malaria patients in critical care.

2.2 REGIONAL AND LOCAL CAPABILITIES

2.2.1 REGIONAL STORAGE FACILITIES IN KYRGYZSTAN

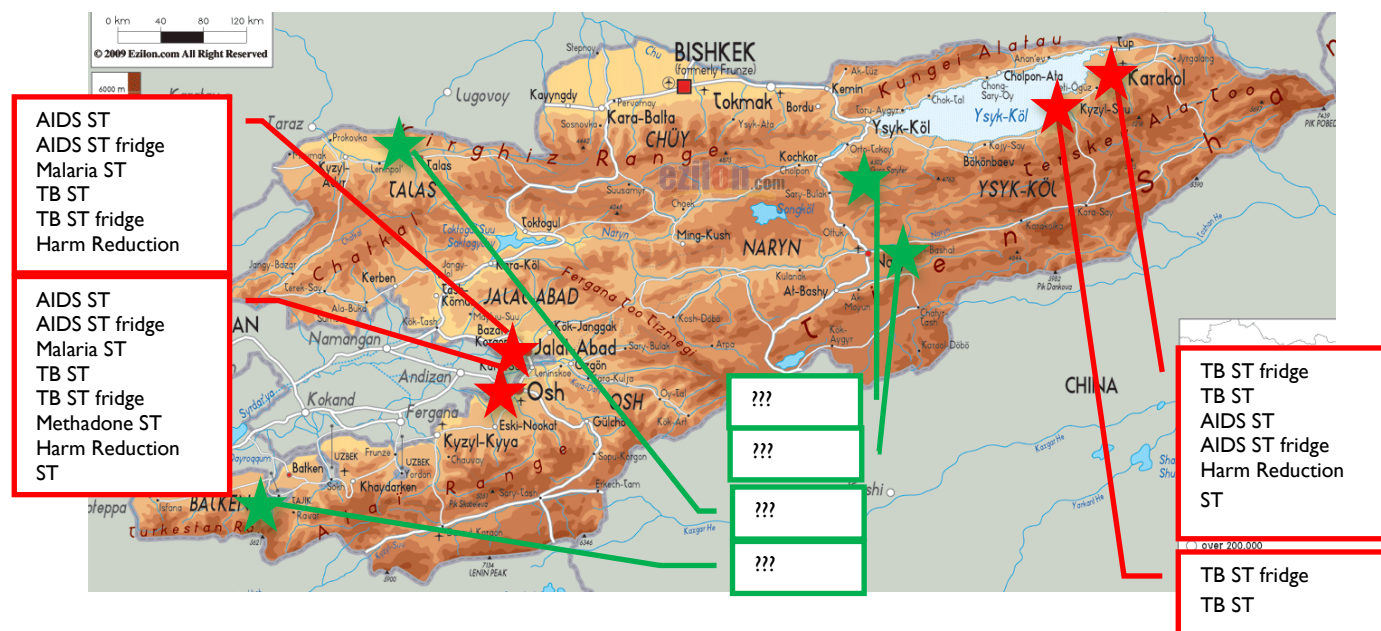
The APMG consultant visited six cities and thirteen sites.

In the Eastern region, we visited the TB Sanatorium at Saruu, the TB Center and the regional AIDS center in Karakol. In the Southern region, Osh was the first city visited, with the tour taking in its regional AIDS center, the Malaria Department, the TB Center, the Regional Center of Narcology for Methadone and finally, the harm-reduction storage facility at the city AIDS center. In Jalal-Abad, we visited the Sanitary and Epidemiology Surveillance Center, the TB center, and the AIDS center. We had no opportunity to visit the Western and Central regions. Our extensive site visits have given us a vivid understanding of local settings, allowing us to extrapolate trends and patterns to the warehousing conditions in the remainder of the country.

2.2.2 LOCATIONS

Osh, Jalal-Abad, Saruu and Karakol represent the most populous cities in Kyrgyzstan outside Bishkek. Correspondingly, the responses to HIV/AIDS, Malaria, and TB are the most scaled-up in these regions.

FIGURE 2: LOCATION OF STORAGE FACILITIES IN KYRGYZSTAN BY REGION



2.2.3 CONDITIONS AT SAMPLE OF REGIONAL AND LOCAL FACILITIES

Table 6 in **Annex C** presents the detailed conditions of regional and local storage facilities and the buildings that house them. Several photographs of regional sites are provided in **Annex E**.

2.2.3.1 BUILDING SELECTION

Most of these facilities are not located within the care centers, but in peripheral buildings. Some walking is required to reach them and replenish local stores. Problems could arise under the region's extreme weather if supplies are exposed to heat, cold or excess humidity. These buildings are often one-story brick houses with a single room inside and adjacent to other small hangars. It is our understanding that they are renovated small barns that might have been part of a farm. APMG recognizes the selection decision might have been led by the availability of such a potentially well-suited space and the absence of periodic regional distribution, and as a consequence, the need to accommodate stock space for six to 12 months worth of supply. They might be useful to temporarily store unopened boxes of health supplies but the situation is highly problematic when it comes to medicines.

2.2.3.2 EXTERIOR CONDITIONS

Structural Conditions are highly variable, ranging from rustic brick-walled sheds with recent roof water seepage such as at the Osh AIDS center's harm-reduction storage facility, to a well-organized room filled with labeled wardrobes at the Osh TB hospital that has cracks apparently from a recent earthquake. Most have received some kind of reasonable renovation. At the same time, however, some have been recently damaged and await funding for repairs while products are still being stored inside.

2.2.3.3 INTERIOR CONDITIONS

The status of internal spaces are also highly variable, with most of the storage areas not meeting minimum compliance. Storage managers or clinic directors confirmed this. Understandably, storage quality is not a priority when funding is scarce. However, the negative impacts can be more costly than the necessary renovation costs to prevent product compromise. The average sites are one-story brick houses with single rooms and often lack hermetic doors or windows; a condition that has a negative impact on cleanliness and humidity. Storage facilities inside care centers receive more attention and are thus in a better state.

2.2.3.4 PERMANENT AND EMERGENCY PRODUCT PRESERVATION

These facilities are without the proper mechanical temperature management and control (heaters and air conditioners), and lack possess hygrometers or electricity to enable permanent and emergency product preservation. Even more so than at the central storage facilities, emergency power back-up and fire extinguishers are scarcely found. On the positive side, security is better managed, with secured windows and controlled sunlight.

Cabinets for medicines managed by nurses and pharmacists are relatively well maintained and reasonably labeled (especially at the TB centers in Saruu, Karakol, and Osh).

2.2.3.5 SHELVING AND LABELING

Shelves and labeling for bulk supplies such as harm-reduction paraphernalia or health products are not as well maintained. Since they are bulky, these supplies come every semester when

space permits it. Continued supply when space is limited can lead to uncontrolled jams and is sometimes observed, depending on the season.

2.2.3.6 LAYOUT AND STOCKING

The lack of staff training in spatial layout and stocking methods is noticeable. Often, bulky supplies are piled on the ground without floor protection.

2.2.3.7 INVENTORY TRACKING

Inventory movement records are still well maintained even without any data about on-hand inventory.

2.2.3.8 CLEANLINESS

For hygiene to meet basic standards is highly dependent on the particular setting: the conditions at storage facilities improve the closer they are to the point of care. Facilities in hospitals are often impeccably kept but those in remote areas fail to meet the standards. It appears also that the remote one-story brick houses without proper closure of windows, doors and other envelope gaps are more frequently in need of cleaning. APMG cannot stress enough that cleanliness is an essential requirement of proper warehousing and that its absence is interwoven with many other problems that could compromise products.

2.2.3.9 REFRIGERATION

The situations for storing refrigerated medicines are also in need of serious revision. Old, worn-out domestic, undersized fridges are a very unstable and fragile link in the cold chain. A brand new professional fridge has been found at the Osh AIDS center among six old ones. Stock management and replenishment has been flagged as a real challenge in these current conditions.

2.2.3.10 METHADONE

This specialty medicine is also stored centrally in Bishkek at the National Center for Narcology before it is shipped to the regions. APMG acknowledges that security standards are met vigilantly. In contrast, pharmaceutical and hygienic standards are seldom applied. Although temporary, the situation in Osh – where Methadone mixing is outsourced to a commercial pharmacy – blatantly infringes on accepted standards.

2.2.4 CONSEQUENCES OF THE CURRENT REGIONAL SITUATION

Although storage volume in the regions is rather small for AIDS medicines and health supplies, large for TB, and very large for harm reduction, the lack of proper facilities and the undersized and inappropriate fridges encourages staff to reduce stock on hand and rotate inventory faster, relying on more frequent pick-ups from the central facilities and the constant attention of the medical staff. This is the perception of the APMG consultants. The risk of stocking out is considerable and has not been quantified. It is conceivable that services to patients have been temporarily halted for this reason. This is highly problematic for HIV/AIDS patients and TB and malaria patients in critical care.

Another unquantifiable was wastage, both because of mishandling during transport and inappropriate storage conditions. As illustrated in **Annex F**, the APMG consultant found a high frequency of boxes that had been mishandled during transport from Bishkek to the regional centers. Wastage from the lack of mechanical temperature management was not possible to quantify. But it is known that in Osh, the annual high is 35°C in July with an average of 27°C, and the annual low is -6°C in January with an average of -2°C. The impact of temperature on medicines such as non-refrigerated FLD and SLD, and health products such as condoms and

lubricants remains to be assessed in detail. Again, the tendency for condoms to burst easily has been reported repeatedly in these regions.

3. HIGH-LEVEL RECOMMENDATIONS

To the APMG consultants, it appears feasible to merge all central storage facilities into a single location. We would recommend a centralized temporary solution including:

- 4) clearing,
 - 5) warehousing and inventory management, and,
 - 6) regional distribution performed by a commercial third-party logistics company.
- Meanwhile, a public storage facility might be found or built for future permanent warehousing. The application for a Health System Strengthening grant might be envisaged at this stage.

Technical assistance for planning, inspecting current stock, and transitioning stock from the central facilities to a principal warehouse will be needed to successfully manage these tasks. After the transition, APMG suggests the return of the six empty storage facilities to their respective national agencies.

Accompanying this change, UNDP should gradually rationalize procurement schedules and quantities. Soon after, it will be time to optimize inbound shipment frequency and minimize storage space requirement variation.

It is strongly suggested that training be granted to local inventory specialists in storage compliance, inventory layout, and management. Concurrently, the UNDP should provide standardized monitoring equipment and stock management guidelines. Comprehensive technical assistance for seismic-risk assessments, storage-space search, and renovations including installation of metal shelving, should accompany those steps.

Mechanical temperature management (air conditioning and heating) should be offered to local storage facilities and two domestic fridges replaced by one professional fridge, the delivery of which should include installation and staff training.

It will then be the task of UNDP to optimize outbound distribution, continually readjust local and central stock levels, retrain local inventory specialists, re-optimize inbound shipment frequency and re-minimize storage space requirement variation.

On methadone, the UNDP should take the lead and ensure its storage and distribution meets WHO standards as strictly as the UNODC's controlled-substance security standards. This can be eased if the decision is taken to shift procurement of powdered methadone into liquid form and modify storage locations to accommodate the new volume.

4. DETAILED RECOMMENDATIONS

4.1 CENTRALIZING STOCKS WITHIN A PRINCIPAL WAREHOUSE

To APMG, the current central storage situation leads to:

- 1) Systemic lack of adequate control of inbound product deliveries;
- 2) Continuing inability to comprehend the inventory situation;

- 3) Absence of precise information about real usage of medicines and health products;
- 4) Impossibility for the PR Procurement Unit to efficiently and effectively procure;
- 5) Widespread seasonality in the product volume received;
- 6) Inadequate storage site selection and inappropriate or absence of renovations;
- 7) Partial compliance with WHO warehousing standards;
- 8) Limited use of standard inventory management and equipment;
- 9) Sporadic, uncoordinated, and unbudgeted outbound distribution system; and,
- 10) Inability to evaluate and monitor the difference type of wastage.

4.1.1 EVALUATING ALTERNATIVES

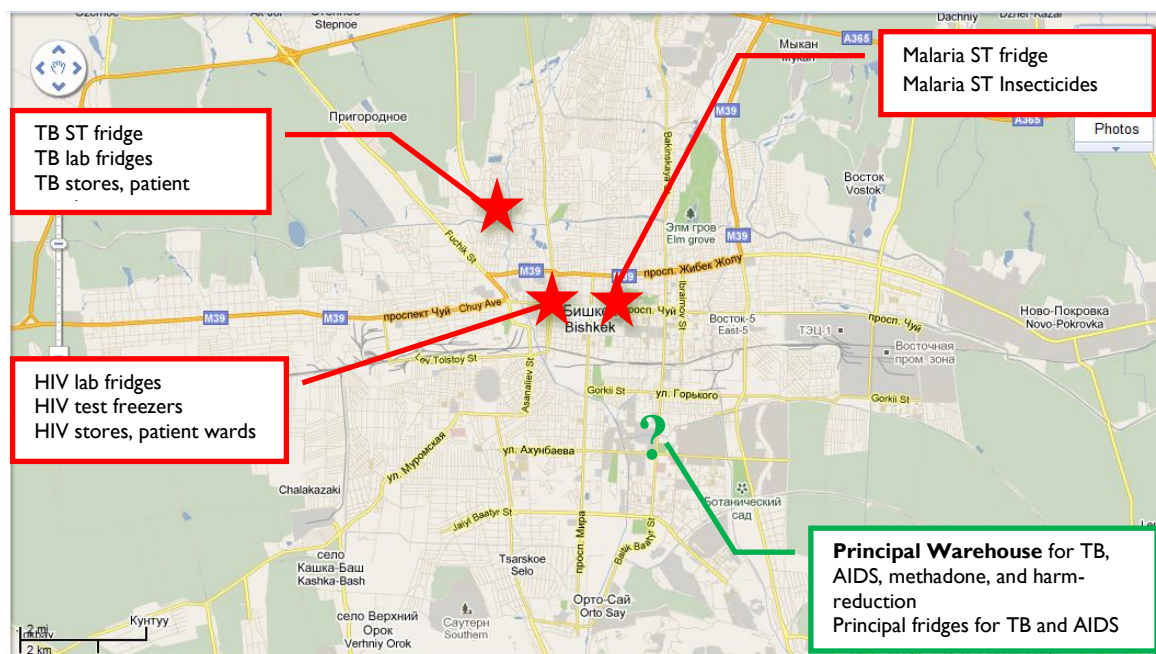
While we carried out careful evaluation of the public and commercial options in the capital, it should be noted that access to warehousing of hospital supplies was denied and so we were unable to include any information on those facilities. Listed below are alternatives that have the capacity to alleviate the current situation:

TABLE 1: SCALED LIST OF OPTIONS TO IMPROVE CENTRAL STORAGE FACILITIES

	Alternative #1: Status Quo	Alternative #2: Upgrade	Alternative #3: Temporary Third-Party Logistics Provider	Alternative #4: New principal warehouse
Means needed	Absent funding and political motivation	Limited funding Some political motivation	Some funding Large political will	Large funding Large political will
Mitigation achieved	None	6), 7) and 8)	Potentially all	6), 7) and 8)
Major tasks involved	None	Upgrade current storage Renovate non-compliant sites Provide equipment Train inventory specialists	Tender third-party logistics firms Transition to third-party firms Restitute central storage facilities Upgrade current facilities Provide equipment Train inventory specialists Find or construct new warehouses Transition to new warehouses	Find or construct new warehouse Transition to new one Restitute central storage sites Upgrade current sites Provide equipment Train inventory specialists
Facilitating factors	-	-	Current critical situation Existing good third-party logistics	Current critical situation Site availability for warehousing Existing expertise in warehousing
Limiting factors	-	-	No motivation to give up central storage facilities Lack of political will	Lack of large funding Alignment with hospital warehousing needs

APMG advises first that a professional third-party logistics (TPL) partner, with expertise to control and manage inventory and distribute items to the regions, be retained. Second, all central storage facilities should be merged into a single principal warehouse that meets WHO standards. This would correspond with the following tasks: 1) clearing, 2) warehousing and inventory management, and 3) regional distribution. These three are so intertwined that they are often performed in the supply chain field by the same TPL. Therefore, APMG believes Alternative #3 (Table 1) is the most favorable. The principal warehouse should include a refrigerated room or compartment to hold a large quantity of SLD for AIDS and TB. Should these recommendations be followed, the map of central storage facilities in Bishkek would look something like the following:

FIGURE 3: RECOMMENDED NEW SITES FOR CENTRAL STORAGE FACILITIES IN BISHKEK



4.1.2 EVALUATING DETAILED BENEFITS

In moving supplies inbound and outbound and storing them, the TPL proposition would provide a great deal of coordination of information and insight that will be both beneficial to regional stores and to the PR Procurement Unit.

Centralizing storage, inventory management and distribution is expected to have the following benefits:

TABLE 2: EXPECTED BENEFITS OF CENTRALIZATION, OUTSOURCING TO THIRD-PARTY PROVIDERS

Current situation	Tasks	Future gains
Absence of standardized control Potential unnoticed wastage	1) Clearing inbound shipments	Efficient and standardized control Decrease in risk of errors and wastage
Storage space limited Contravenes WHO standards Absence of standardized methods	2) Central warehouse	Professional warehousing activities Sufficient space Compliant with WHO warehousing standards Standardized methods
Absence of inventory management Absence of data regarding inventory on hand Information unavailable to PR	3) Inventory management	Efficient and responsive management Proactive response against stockout Ready transmission of information to PR Available of data for procurement and forecasting Limited wastage
Paid for by staff as personal expense	4) Distribution to regions	Paid for by PR

Wastage and potential for compromised products Variability and uncertainty in deliveries Challenge in managing inventory and preventing stockout with overstocking		TPL reports defect and usage information to PR about Certainty in delivery schedule Positive impact on local inventory and space management
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4.1.3 APPLYING THE RECOMMENDED ALTERNATIVE

APMG believes **Alternative #3** should be implemented as soon as possible via a Request for Information and then a Request for Quotation. Several local TPLs visited that could meet WHO warehousing standards and have the requisite expertise have verbally confirmed their interest in lodging a bid. DHL Kyrgyzstan, Uni Help, and Neman are among the suitable and potential commercial partners. In **Annex I**, photos illustrate the medical warehousing standards available at a Uni Help facility.

Further in **Annex I**, we propose a detailed draft Terms of Reference that could be used as a base for future tender notices.

Technical assistance for planning, inspecting potentially compromised current stock, and transitioning stock from the existing central facilities to a principal warehouse, will be needed to successfully manage these tasks. It is important to prevent any disruption of supply distribution that might have an impact on health services during the transition.

After that, APMG suggests the return of the six empty storage facilities to their respective national agencies while they continue to serve their local stores on a periodic basis via outbound distribution.

4.1.4 EVALUATING WAREHOUSE VOLUME REQUIRED

It is very challenging to quantify the real storage volume used as so many factors may influence inventory levels. The APMG consultant faced similar difficulties in forecasting future storage volume. In the following table, we summarize the current and adjusted volume taking into consideration factors of potential impact.

TABLE 3: CURRENT AND ADJUSTED STORAGE VOLUME AND IMPACTING FACTORS

Type of products	Harm Reduction	Malaria	TB	HIV/AIDS	Methadone
Current volume used	HR WH#1: 300m3 - ok HR WH#2: 500m3 – overstocked	Malaria ST fridge Malaria ST Insecticides	TB ST#1: 50m3 - full TB ST refrigerated compartment: 20m3 - full TB ST#2: 225m3 - ok TB ST#3: 240m3 - never	HIV ST#1: 90m3 – ok HIV lab fridges: 12 fridges @ 1m3: 12m3	Methadone ST
	Non-refrigerated products: 1,405m3 Non-medical (insecticides): 25m3 Refrigerated products (excluding ward fridges): 32m3 Methadone: ≤ 5m3				
Impacting parameters	Products potentially compromised in WH#2 Overstocking in WH#2 Last year's overstock? Over-ordered? Inbound: yearly	Insecticides/bed nets shipped directly to regions: transitional Inbound: yearly	TB ST#3: oversized Inbound: yearly Overstocked from last year? Over-ordered? Inbound: Quarterly for refrigerated products	Inbound: twice a year?	Inbound: yearly
Potential impact of executed APMG plan and other trends	Bulky: inbound 2 to 3 times per year Streamlined forecast. Reduction of over-ordering		Bulky: inbound 2 per year Streamlined forecast	Increasing ART volume?	Move to liquid: 90-110 pallets/year Inbound: 2 to 4 times/year Increasing OST volume
Adjusted volume	HR WH#1: 300m3/3 = 100m3 HR WH#2: (500m3 – 200m3 for wastage)/3 = 100m3 Total: 200m3	Insecticides: 25m3	TB ST#1: 50m3/2 ≈ 25m3 TB ST#2: 225m3/2 ≈ 100m3 TB ST#3: 240m3/2 ≈ 100m3 Total: ≈ 200m3 TB ST refrigerated: 20m3	HIV ST#1: 100m3 HIV ST refrigerated: 20m3	25 pallets @ 1.5m3 ≈ 40m3
Estimated volume (real/real + 15%-20%)	Non-refrigerated products: 500/600m3 Non-medical (insecticides): 25m3 Refrigerated products (excluding ward fridges): 40/50m3 (including space for packing) Methadone: 40/50m3				
	<i>Note: APMG consultants would recommend these volumes for tender specifications, under the proviso that the estimates above inevitably exclude numerous foreseeable and unforeseeable variables that could affect inventory levels.</i>				

4.1.5 ENVISIONING A LONG-TERM SOLUTION FOR KYRGYZSTAN

Kyrgyzstan might consider a GFATM proposal for Health System Strengthening and might include hospital supplies warehousing too. This alternative would involve:

- 1) an evaluation of the volume requirements (hospital supplies and GFATM supplies);

- 2) a search of the suitable sites and best locations, with note taken of potential for traffic jams, most frequent delivery routes, and future transportation development in Bishkek;
- 3) planning and costing of warehousing building, and then,
- 4) proposal elaboration and submission to the GFATM.

4.2 PROVIDING THE BASICS TO REGIONAL STORAGE CENTER AND LOCAL STORE STAFF

We strongly suggest starting mass training for local inventory specialists in storage compliance, inventory layout and management. Instruction will take a couple of days; have two modules, including non-refrigerated medicines and health products and then refrigerated medicines; and provide specific information about methadone and antimalarial products. Assuming that a least two people per site should be trained, we computed the following:

- non-refrigerated medicines and health products: $2 \times 13 = 26$
- refrigerated medicines: $2 \times 9 = 18$

At this training, the UNDP should provide standardized shelf labels, thermometers, hygrometers, and logging sheets. It is most important to provide standardized products to ensure that they:

- meet WHO standards;
 - respect the PR mandate;
 - are of the highest possible quality;
 - do not differ in specification and quality; and,
 - are aligned with the guidelines.
- regional storages and local stores (in Bishkek and in the regions): $2 \times 13 = 26$
- Also at this training, simple but comprehensive stock management guidelines tailored to the Kyrgyz situation should be provided. APMG recommends that a one-page document of “Do’s and don’ts” be glued on the doors of fridges and storage rooms as reminders.

4.3 STREAMLINING DOWNSTREAM TASKS AT REGIONAL FACILITIES AND LOCAL STORES

Shortly after the training, to take advantage of the educational momentum, complete technical assistance should be provided for:

- seismic-risk assessment;
- storage space search and selection;
- storage renovations; and,
- metal-shelving installation.

We recommend inviting tenders for this service, making sure that the same company is used to prevent any variation in quality and methods. It is also necessary to train installers in the specifics of medicines and health products. It should be taken into account that storage conditions improve the closer spaces are located to points of care. Assuming that we visited all

storages and local stores and excluding storage sites for methadone, we computed the following:

	Bishkek	Regions	Total
Non-refrigerated medicines and health products	2	9	11
Antimalarial products	1	2	3

As for storage renovation and metal shelf installation, the APMG consultants have collected the following dimensions:

Bishkek	TB ST#1: 5x4x2,5m	HIV SL#1: 4x5x3m HIV SL#1: 5x2x3m	Malaria SL Insecticides
Saruu and Karakol	TB: 5x4x3m TB: 6x6x3m		
Osh	AIDS Center: 3x2x2,5m Harm-reduction: 4x2,5x2m	TB Centre: 3x5x3m TB Centre: 3x4x3m	
Jalal-Abad	Harm reduction: 2x6x3m	TB Centre: 5x5x2,5m	

Mechanical temperature management (air conditioners and heaters) should be offered for the local storage facilities. Without including the current machines, which should be replaced, we collected the following figures:

	Bishkek	Regions	Total
Air conditioners:	3	10	13
Heaters:	1	6	7

The APMG consultants strongly encourage the replacement of two domestic fridges with a commercial fridge. The replacement procedure should include installation and staff training.

Specifications of professional fridges should be carefully considered. A best practice might be the one used at the AIDS Center in Osh (see **Annex H**). It would be optimal to include a digital temperature data logger that records minimum and maximum temperatures reached during the day. It is important to monitor and log this type of data in case of improper unspotted fluctuations. Another useful feature is an alarm that sounds when the fridge's temperature goes outside a specified range.

	Bishkek	Regions	Total
Current domestic fridges:	15*	14	29
Professional fridges needed:	8	7	15

*The decision for a centralized warehouse with a central refrigerated room will lower this figure. It needs further analysis.

We also urge the tendering for a nationwide maintenance contract for the upkeep of the professional fridges and freezers. The tender invitation should call for temperature control maintenance twice a year, with a written report on the status of each fridge.

4.4 STREAMLINING UPSTREAM UNDP TASKS

The UNDP should gradually rationalize delivery schedules and quantities, detect savings in the budget and reallocate these savings whenever possible.

Upstream from the principal warehouse, inbound delivery frequency will need to be optimized and storage space requirement variation, minimized. APMG recommends that the UNDP lead this task alongside the chosen third-party logistics firm. The following type of product volume should be reviewed and optimized:

	Number of products	Metric volume	Review	Recommended delivery schedule
AIDS medicines and health products	High	Low	Not necessarily	Once a year
Harm-reduction health products	Low	Very high	Yes	Twice a year or more
Antimalarial products	Low	Very high	Not necessarily	Once a year
TB medicines and health products	High	High	Yes	Twice a year or more
Methadone	Low	Depends if powder or liquid	Yes	Depends if powder or liquid

Any delivery schedule changes should be reviewed with past and future suppliers. Usually, suppliers accept the absorption of this kind of minor financial cost. If not, a quick cost/benefit analysis (including the risk of stocking out in case of increased usage) should be performed by the UNDP Procurement Unit to facilitate decision making. It is standard practice to keep a minimum of three months worth of inventory in the central warehouse.

After this step, it will be the task of UNDP to optimize outbound distribution, readjust local (limiting risky overstocking – especially for refrigerated products) and central stock levels with outbound distribution frequency. Again, this optimization should be led by the UNDP and the contracted third-party logistics firm. At the same time, UNDP should track meticulously all types of wastage and damaged boxes, and solve root-cause logistical issues in an iterative process. The regional storage centers and local stores should immediately report to the UNDP when such incidents occur.

The UNDP is expected to gain quantitative knowledge from this exercise, which will hopefully aid future procurement.

4.5 OUTLINING ISSUES REGARDING METHADONE

With regards to methadone, the UNDP should take the lead in ensuring that methadone storage and distribution strictly meet WHO pharmaceutical standards, as rigorously as the UNODC controlled substance security standards are applied. This could be simplified if the decision is taken to transition procurement of powdered methadone into liquid form and accordingly modify storage facilities to accommodate the new volume.

We recommend the following be taken into account: that one potential third-party logistics firm visited informed us that the MoH had authorized it to handle controlled substances such as methadone. This might be of tremendous help during any transition period. But the additional space required at the central, regional, and local levels should be carefully analyzed.

APMG found the following information that might aid in the decision-making process. On the basis of 5mg for 1mL, 1kg produces 200L. This means that 65kg for 2012 will produce 13,000L. The volume 13,000L corresponds to 2,166 cartons (of 6L each), around 90 pallets (of 24 cartons each) or about four full truckloads (carrying 24 pallets each).

The UNDP Procurement Unit should now compute the cost benefit of the potential increase transport price against the cost of having, preparing, certifying and maintaining several pharmaceutical rooms to transform powdered methadone into liquid form.

APMG further recommends the use of plastic bottles to reduce breakage and wastage.

4.6 MONITORING STORAGE PROGRESS

As a follow-up, it is recommended to perform another storage evaluation (with the tables in Annexes 1 and 2 for progress report) within the six months after the training. And then recommence once a year.

4.7 TENTATIVE PRIORITIZING AND SCHEDULING OF RECOMMENDATIONS

In order to help sort the long list of tasks recommended in the evaluation, we propose the following prioritization:

TABLE 4: SCHEDULE AND PRIORITIZATION OF RECOMMENDATIONS

1	Prepare tender invitation for third-party logistics provider and post a Request for Information
2	Tender and procure standardized monitoring equipments Tender and procure standardized professional fridges
3	Elaborate on stock management guidelines
4	Organize and provide training for storage compliance, inventory layout and management to inventory specialists for non-refrigerated and refrigerated products Provide stock management guidelines for non-refrigerated and refrigerated products
5	Provide comprehensive technical assistance for seismic-risk assessments, storage/store space search and selection, storage renovation and metal-shelf installation, prioritizing the regional storage facilities and local stores Renovate regional storage sites and local stores
6	Tender for third-party logistics provider
7	Provide and replace two domestic fridges with one commercial appliance and include training for its use Provide mechanical temperature management (air conditioners and heaters) to the local storage facilities
8	Rationalize procurement schedule and quantity. Soon thereafter, it will be time to optimize inbound shipment frequency and minimize storage space requirement variation.
9	Award contract to third-party logistics provider
10	Audit quality of current stock, especially HR WH#1 and HR WH#2, TB ST#2, and TB ST#3
11	Transition stocks from central storage facilities to principal warehouses
12	Return the six empty storages to their respective national agencies.
13	Wait six months and perform evaluation of storage progress

14	Optimize outbound distribution, continually readjust local and central stock levels, retrain local inventory specialists, re-optimize inbound shipment frequency and re-minimize storage-space requirement variation.
15	Decide on a long-term solution for warehousing

ANNEX A: MISSION SHEDULE

Date	Activity	Attended by
05/30/2011: 9am	Meeting with UNDP Procurement Unit	Aram Manukyan,
10am	Meeting & visit, AIDS Center	Pierre de Vasson
05/31/2011: 10am	Meeting & visit, Department of Epidemiology Sanitary Surveillance in Bishkek	Talant Aliev
2pm	Meeting & visit, Center of Phthisiology in Bishkek	Pierre de Vasson
4pm	Meeting & visit, storage locations at Center of Phthisiology in Voroncovka	
6pm	Meeting & visit, storage location at Center of Phthisiology in Bishkek	
06/01/2011: 9:30am	Meeting with, UNDP Procurement Unit	Talant Aliev
10am	Meeting & visit, AIDS Center	Pierre de Vasson
1:30pm	Meeting & visit, Center of Narcology	
4pm	Meeting & visit, Pharmacia, storage site rented to MoH	
06/02/2011 2:30pm	Meeting & visit, Pharmacia, storage site rented to MoH	Talant Aliev Pierre de Vasson
06/03/2011 9am	Meeting & visit, TB Center, Saruu	Talant Aliev
11am	Meeting & visit, TB Center, Karakol	Pierre de Vasson
2pm	Meeting & visit, AIDS Center, Karakol	
06/06/2011 10am	Meeting & visit, AIDS Center, Osh	Talant Aliev
11am	Meeting & visit, Malaria Department, Osh	Pierre de Vasson
2pm	Meeting & visit, TB Center, Osh	
3pm	Meeting & visit, Osh Methadone Center	
4pm	Visit to harm-reduction storage location, AIDS Center, Osh	
06/07/2011 10am	Meeting & visit, Sanitary and Epidemiology Surveillance Center, Jalal-Abad	Talant Aliev
11:30am	Meeting & visit, TB Center, Jalal-Abad	Pierre de Vasson
12:15pm	Meeting & visit, AIDS Center, Jalal-Abad	
06/08/2011 2pm	Meeting & visit, commercial third-party logistics provider, Uni Help	Talant Aliev
3:30pm	Meeting & visit, Hope	Pierre de Vasson
06/09/2011 10:30am	Meeting with commercial third-party logistics provider, DHL Kyrgyzstan	Talant Aliev
3pm	Presentation & debriefing with UNDP	Pierre de Vasson UNDP

ANNEX B: CONDITIONS AT CENTRAL STORAGE FACILITIES AND BUILDINGS

TABLE 5

City	Bishkek		Voroncovka		Bishkek	
Disease and Reference #	TB ST#1	TB SL refrigerated compartment TB lab fridges	TB SL#2	TB SL#3	Malaria SL fridge	Malaria SL Insecticides
Type of building and location	Center Phthisiology Basement	Annex of Center of Phthisiology Main building, basement 2 large rooms	Apartment building Ground floor 3 rooms	Abandoned building Ground floor Former apartment		Adjacent small house in courtyard
Outside conditions:	-	-	People living in this building	Abandoned building		Ok
Envelope:	-	-	Ok	Damaged		Ok
Roof:	-	-	Ok	?		Ok
Walls:	-	-	Ok	Damaged		Ok
Quake preparedness:	Ok	Ok'd by engineer	Ok'd by engineer	? from engineer		Ok's by engineer
Assessed by engineer:	Yes, see report	Yes, see report	Yes, see report	Yes, see report		Yes, see report

Setting:	1 room	2 rooms: Room #1: refrigerated compartment Room #2: empty, partly renovated, packing table	3 adjacent rooms with Room #1: metal shelves Room #2: metal shelves Room #3: desk and clearance	Apartment including 1 large room + 1 corridor		1 room In an adjacent small house
Interior conditions						
Ceiling:	Ok	Damaged	Traces of water	Ok	Traces of water	Ok
Floor:	Linoleum	Old tiles	Old tiles	Ok	Tiles/concrete	Concrete
Walls:	Ok	Damaged	Renovated	Ok	Traces of water	Ok

Hermetic door:	Ok	Yes and new	Renovated	Ok	Ok	Ok		Ok
Windows:	No	No	Yes and new	Yes, 3	Yes, 1	Yes, 4/5		Yes, 2
Sunlight control:	-	-	Yes, 2 No (no supplies)	Yes	Yes	Yes/No		Ok
Size (L x W x H) meters:	5x4x2,5 50m3	2,5x4x2 20m3	? approx. 35m3	10x5x3 150m3	5x3x5 75m3	Very large 240m2		?? ??
Total available space:	Reached	Reached		Never	Reached	Never		Never
Maximum occupancy:	Full	Full		Medium	Maximum	Minimum		Minimum
Currently used:	6/12 months?	3 months		Annual?	Annual?	Annual		Annual
Inbound ship. schedule:	No	No		Yes	Yes/Ok	Yes		Yes
Size sufficient:								
Type of products:	Multiple drugs	SLD & lab supplies		FLD & SLD	FLD & SLD	PASKs		Insecticides
Refrigerated:	No	Refrigerated		No	No	No		No
Current # of pallets:	14 pallets	6/7 pallets = 10m3		11 pallets	10 pallets	25 pallets (3.5 tons)		
City	Bishkek			Voroncovka			Bishkek	
Disease and Reference #	TB ST#1	TB SL refrigerated compartment TB lab fridges		TB SL#2	TB SL#3		Malaria SL fridge	Malaria SL Insecticides
Electricity:	Yes	Yes	Yes	Yes	Yes	No		Yes
Sufficient lights:	Yes	Yes	Yes	Yes	Yes	No		Yes
Emergency generator:	No	No	-	No	No	No		-
Security:								
Alarm:	Not needed	Not needed	Not needed	No	No	No		Not needed
Fire extinguisher:	No	No	No	Yes	Yes	No		No
Secured windows:	-	-	Yes	Yes	Yes	Yes		No
Secured door:	No	No	No	No	No	No		Yes
Temperature & hydro:	No	No	-	No	No	No		-
Hygrometer:	No	On cooler	-	No	Yes	No		-
Thermometer:	No	No	-	No	Yes	No		-
Temperature	No	No	No	No	Yes, small	No		-

logging:	No	Yes	Yes	Yes	Yes	No		-
Air conditioner:	None	None	None	None	None	None		-
Heater:								
Odor:								
Shelving:								
Wood or metal:	Wood	-	-	Metal	Metal	-		-
Cabinet:	-	-	-	-	-	-		-
Spacing:	2 rows	-	-	3 rows	3 rows	-		-
Levels:	2 levels	-	-	3 levels	3 levels	-		-
Earthquake proof:	No	-	-	Yes	No	No		-
Directly on the floor:	No	Yes	-	No	No	Yes		Yes
Labeling:			-					
None/medium/good:	None	None		None	Yes	None		None
First Expired First Out:	No	No		No	Maybe	No		
Registered staff:	No pharmacist	Pharmacist	-	Not	No pharmacist	No pharmacist		-
Inventory manage't:	Yes	Yes	-					
Inventory on hand:	No	No	-	No	Yes	No		No
Movements:	Yes	Yes	-	Yes	Yes	No		No
Cleanliness:	Ok	Low	-	Good	Good	low		low
Fridges & freezers								
Refrigerated compart.:		Yes						
Size sufficient:		No						
Fridges:		3 house fridges						
Size sufficient:		No						
Freezers:		1 house freezer						

SUMMARY Meeting standards for Exterior conditions: Interior conditions: Sufficient size: Electricity: Security: Temperature: Shelving and storing: Labeling: Registered staff: Inventory manage't: Cleanliness:	Yes Yes Not sufficient Yes No No Ok No No Yes, manual Ok	Yes No Not sufficient Yes Yes No Low No Yes Yes, manual No	Yes No Sufficient Yes Yes - - No Yes Yes, manual Good	Yes Yes Sufficient Yes No No Yes No No Yes, manual Good	Yes Yes Not sufficient Yes No Yes Yes No No Yes, manual Good	No No Sufficient No No No No No No No No	Yes Yes Sufficient No Yes Yes No No No No No
Overall conditions:	Ok	No	Ok	Ok	No	No	Ok
Remarks:		Project to find donors to finance new refrigerated compartment in room #2		Second air conditioner planned FLDs transitioned slowly to TB ST#1 (Bishkek)	Being transitioned to storage to TB ST#1 but insufficient space		Ok relative to the product

City	Bishkek					
Disease and Reference #	HIV SL#1		HIV lab fridges HIV test freezers	Methadone SL	HR WH#1	HR WH#2
Type of building and location	Building of the National AIDS Center Basement & 5 th floor		National AIDS Center 4 th floor	Property of Narcology Independent house with 4 rooms	Property of Narcology Independent house	MoH rents a commercial space at Pharmacia
Exterior conditions	Ok		Ok	Newly renovated	Newly renovated	None ok

Envelope:	Ok	Ok	Newly renovated	Newly renovated	Ok
Roof:	Ok	Ok	Newly renovated	Newly renovated	None ok
Walls:					
Quake preparedness:	??	??	Ok	Ok	??
Assessed by engineer	No	No	No	No	No

City	Bishkek				
Disease and Reference #	HIV SL#1	HIV lab fridges HIV test freezers	Methadone SL	HR WH#1	HR WH#2
Setting:	1 central storage with 2 rooms, ground floor 1 other storage with 2 rooms, 5 th floor (cabinet on patient yards)	12 fridges 4 freezers	2 safe cabinets in a room	Independent barn transformed into warehouse	Big rental space covered by metal sheets
Interior conditions					
Ceiling:	Ok	Ok/Not ok in 2 nd room	Traces of leaks	Ok, fairly hermetic	Ok
Floor:	Linoleum		Tiles	Concrete	Soil
Walls:	Ok	Tiles	Ok	Ok, renovated	Ok
Hermetic door:	Ok	Ok/ Not ok in 2 nd room	Ok	Ok, renovated	2 nd door non ok,
Windows:	Yes, 1		No	No	broken
Sunlight control:	Yes	Ok Yes, 1 Yes	Yes	-	No -
Size (L x W x H) meters:	4x5x3 60m3	5x2x3 30m3	-	21x7x2 300m3	500m2
Total available space:	Not reached	Not reached	Not reached	Not reached	Not reached
Maximum occupancy:	1/3	1/3	1/2	2/3	1/3, huge
Currently used:	6 months	6 months	Every 2 months?	Every 6 months?	Every 12 months
Inbound ship. schedule:	Ok	Ok	For 28kg of product	Yes	Yes
Size sufficient:					
Type of products:	FLD & SLD + ARV	FLD & SLD + ARV		HR paraphernalia	HR paraphernalia
Refrigerated:	No	No	Yes	No	No
Current # of	2 pallets	5 pallets	1/2 pallets	21 pallets	200 pallets

pallets:						
Electricity:	Yes	Yes		Yes	Yes	Yes
Sufficient lighting:	Yes	Yes		Yes	Yes	Yes
Emergency generator:	No	No	No	?	Not needed	No
Security:						
Alarm:	Not needed	Not needed		Yes	Yes	No
Fire extinguisher:	Yes	Yes		?	No	No
Secured windows:	Yes	Yes		Yes	-	-
Secured door:	Yes	No		Yes	Yes	No
Temperature:						
Hygrometer:	No	No		No	No	No
Thermometer:	Yes	Yes		Yes	No	No
Logging:	No	No		No	No	No
Air conditioner:	Yes, small	Yes, small		Yes, small	No	No
Heater:	Yes	Yes		Yes	No	No
Source of odor or pest:	None	Yes, pipes			Safe is not pharma	
Shelving				-		
Wood or metal:	Wooden	Wooden			Metal	No
Cabinet:	-	-			-	-
Spacing:	3 rows	3 rows			3 rows	-
Levels:	3 levels	3 levels			3 levels	-
Earthquake proof:	No	No			Ok, metal on concrete	?
Directly on the floor:	Yes	Yes		-	Yes	Yes
Labeling:	No	No		-	No	No
None/mini/medium:						
First Expired First Out:						
Registered staff:	Pharmacist	Pharmacist		-	Pharmacist	No pharmacist
Inventory manage.t:	Yes	Yes		Yes	Yes	Yes
Inventory on hand:	No	No		No	No	No
Movements:	Yes	Yes		Yes	Yes	Yes
Cleanliness:	Good	Low		Good	Good	Very low

Fridges & freezers	-	-	-	-	-	-
Refrigerated compart.:			-			
Size sufficient:			12 fridges (+/- house fridges)			
Fridges:			?			
Size sufficient:			4 professional freezers			
Freezers:						
SUMMARY						
Meeting standards for	Yes	Yes	Yes	Yes	Yes	No
Exterior conditions:	Ok	No	Ok	Ok	Ok	No
Interior conditions:	Ok	Ok	Ok	Ok	Ok	Ok
Sufficient size:	Yes	Yes	Yes	Yes	Yes	Yes
Electricity:	Yes	No	Yes	Yes	Yes	No
Security:	Yes	Yes	Yes	No	No	No
Temperature:	No	No	No	-	Yes	No
Shelving:	No	No	No	-	No	No
Labeling:	Yes	Yes	Yes	No	Yes	No
Registered staff:	Yes, manual	Yes, manual	Yes, manual	Yes, manual	Yes, manual	Yes, manual
Inventory manage.t:	Yes	Low	Yes	Yes	Yes	No
Cleanliness:						
Overall conditions:	Ok	No	Ok	Ok	Ok	No
Remarks:			3 additional freezers are scheduled	Additional rooms for Methadone mixing	Barn transformed into a real warehouse	This location has been a concern for the LFAs. Potential wastage?

ANNEX C: CONDITIONS AT REGIONAL AND LOCAL STORAGE CENTERS

TABLE 6

City	Saruu	Karakol	
Disease and Reference #	TB Center for Adults	TB Center	AIDS Center
Type of building and location:	4-room house adjacent to others Walking distance from sanatorium	2-room house adjacent to others Walking distance from Center	AIDS Center is an independent building. Store is located inside a patient room.
Exterior conditions	Ok	Ok	Ok
Envelope:	??	Traces of leaks inside the house	Ok
Roof:	Mortar removed at the base of the walls	Traces of humidity	Ok
Walls:			
In case of earthquake	??	??	??
Assessed by engineer	No	No	No

City	Saruu	Karakol	
Disease and Reference #	TB Center for Adults	TB Center	AIDS Center
Setting:	4-room house adjacent: 2 storage rooms with wardrobes & cabinets 1 room for packing 1 room for producing glucose	2-room house adjacent to others 1 corridor with piles of boxes 1 room with cabinets	Store is located inside a patient ward. 1 wooden cabinet
Interior conditions:	Ok	Traces of water ingress	Ok
Ceiling:	Harwood & old tiles	Linoleum	Linoleum

Floor:	Ok	Ok	Ok
Walls:	Not	Not	Yes
Hermetic door:	4 or more	1	2
Windows:	Yes for 2/4	yes	Yes for all
Sunlight control:			
Size (L x W x H) meters:	Approx. 2 times 5x4x3 120m3	6x6x3 102m3	
Total available space:	Yes, reached	Not reached	
Maximum occupancy:	1/3	¼ full	
Currently used:	Every quarter because lack of space	For 6 months	
Inbound ship. schedule:	Yes for 3 months	Yes	
Size sufficient:			
Type of products:	FLD & SLD	FLD & SLD	FLD & SLD
Refrigerated:	Yes, small number	No	Yes
Current # of pallets:	2 or 3 pallets	8 pallets	Less than 1
Electricity:	Yes	Yes	Yes
Sufficient lights:	Yes	Yes	Yes
Emergency generator:	No	No	No
Security Alarm:	No	No	No
Fire extinguisher:	No	Yes	No
Secured windows:	Yes	Yes	Yes
Secured door:	No	Not for front door, yes for 2 nd	No
Temperature:			
Hygrometer:	No	No	No
Thermometer:	No	Yes	Yes
Logging:	No	No	Yes
Air conditioner:	No	No	Yes
Heater:	No	Electric heater when needed	Yes
Source of odor	Yes	Yes	No
Shelving Wood or metal:	Wood cabinet and wardrobe	Wood cabinet and wardrobe	Wood cabinet

Cabinet:	Yes, several	Yes, several	Yes
Spacing:	-	-	-
Levels:	-	3	-
Earthquake proof:	No	No	No
Directly on the floor:	No	Yes	No
Labeling:	Yes	Yes	No
None/mini/medium:	Minimal	Medium	None
First Expired, First Out:	No	Maybe	No
Registered staff:	Nurse		Nurse
Inventory management:	No	No	No
Inventory on hand:	Yes	Yes	Yes
Movements:			
Cleanliness:	Good	Good	Good
Fridges & freezers			
Refrigerated compartment:	-	-	-
Size sufficient:	-	-	-
Fridges:	2 house fridges	-	2 house fridges
Size sufficient:		-	
Freezers:			
SUMMARY			
Meeting standards for	Low	Ok	Ok
Exterior conditions:	No	Ok	Ok
Interior conditions:	Yes	Yes	Yes
Sufficient size:	Yes	Yes	Yes
Electricity:	No	No	No
Security:	No	No	No
Temperature:	Ok	Ok	Ok
Shelving:	Yes	Yes	Yes
Labeling:	Yes	Yes	Yes
	Good	Good	Good

Registered staff: Inventory manage.t: Cleanliness:			
Overall conditions::	Ok	Ok	Ok

City	Osh				
Disease and Reference #	AIDS Center	Malaria Center	TB Center	Center for Narcology	Harm-reduction storage at AIDS Center
Type of building and location	AIDS Center Storage room inside Center Cabinet at the patient level 7 fridges in the lab + 1 for patient	Independent from main. One-story brick house. Adjacent to other small hangars	Inside TB hospital 2 rooms filled with wardrobe 2 nd floor & patient level	Individual house Inside property of the Center for Narcology	Independent from main building. One-story brick house. Adjacent to other small hangars.
Exterior conditions: Envelop: Roof: Walls:	Ok Ok Ok	Ok Ok Ok	Ok Ok Ok	Renovated Renovated Renovated	Ok Ok Fair
In case of earthquake	??	??	Building/room damaged	??	??
Assessed by engineer	No	No	No	No	No
City	Osh				
Disease and	AIDS Center	Malaria Center	TB Center	Methadone Center	Harm-reduction storage

Reference #					at AIDS Center
Setting:	Storage room inside the Center Cabinet at patient level	Single-space storage	Room filled with wardrobes		3 rooms with a corridor Room #1 with 2 safe cabinets, Room #2 is ready for mixing Mixing is outsourced to a pharmacy
Suitability:	Ok	Ok	??, building damaged		Yes, renovated stand-alone
Interior conditions	Ok	Ok	Ok	Ok	Ok
Ceiling:	Hardwood	Old tiles	Linoleum	Linoleum	Hardwood
Floor:	Ok	Ok	Ok	Ok	Fair
Walls:	No	No	Ok	Ok	Not hermetic
Hermetic door:	No	Yes	Yes	Yes	Yes, but partly walled
Windows:	-	No	Ok	Ok	-
Sunlight control:	-	-	-	-	-
Size (L x W x H) meter:	3x2x2,5 15m3		3x5x3 + 45m3	3x4x3 + 36m3	4x2,5x2 20m3
Total available space:	Reached Almost full	Not reached 1/5	Reached 1/2	Reached 1/2	Not reached Minimal
Maximum occupancy:	6 months	12 months	Quarter	Quarter	-
Currently used:	No	Yes	No	No	Yes
Inbound ship. schedule:					
Size sufficient:					
Type of products:	FLD and SLD	Insecticides	FLD and SLD		Powdered methadone
Refrigerated:	No and refrigerated	No	Both, yes and no		No
Current # of pallets:	2 to 3 pallets	2 to 3 pallets	2 or 3 pallets x 2		No
Electricity:	No	Yes	Yes		Yes
Sufficient lights:	-		Yes		Yes
Emergency generator:	No		No		No
Security:					
Alarm:	No	No, needed because	No	No	Yes
Fire extinguisher:	No	stand	No	No	No
					No, needed because stand alone

Secured windows:	- No	No No	Yes Yes	Yes Yes	Yes Yes	No - Yes
Secured door:		No				
Temperature:						
Hygrometer:	No		No	No	No	No
Thermometer:	No		Yes	Yes	No	No
Logging:	No		No	No	No	No
Air conditioner:	No		No	No	Yes	No
Heater:	No		Yes	Yes	Yes	No
Source of odor/pest	Yes, pipe		Plants	-	-	-
Shelving						No
Wood or metal:	Wood		Wood	Wood	-	
Cabinet:	No		Yes, 7	Yes, 6	Safe cabinet	
Spacing:	On the walls		On the walls	On walls	-	
Levels:	3		3	3	-	
Earthquake proof:	No		No		-	
Directly on the floor:	Yes		-	-	-	Yes
Labeling:	No		Yes	-	-	No
None/mini/medium:	None		Good			None
First Expired, First Out:	No		Maybe			No
Registered staff:	No		Yes, pharmacist	Yes		Not needed
Inventory management:	No	No	Yes		No	No
Inventory on hand:	Yes	Yes	Yes		Yes	Yes
Movements:						
Cleanliness:	Ok	Low	Good		Low for outsource pharmacy	Low
Fridges & freezers						
Refrigerated compartment:	-		-		-	-
Size sufficient:	7 home + 1 professional		2 house	1 fridge		
Fridges:	fridges		fridges	No		

Size sufficient:	No		No	-	
Freezers:	-		-		
Inappropriate usage:	Yes, food		Yes, food		
SUMMARY					
Meeting standards for	Ok	Ok	No		Ok
Exterior conditions:	No	Ok	Ok		Ok
Interior conditions:	Ok	Ok	??, building damaged	Yes, renovated stand-alone	Ok
Suitability:	No	Ok	No		Ok
Sufficient size:	No	Ok	Ok		No
Electricity:	No	No	Ok		No
Security:	No	Ok	No		No
Temperature:	Ok	Ok	Ok		Ok
Shelving:	Ok	Ok	Ok		Ok
Labeling:	Ok	Ok	Ok		No
Registered staff:					
Inventory management:					
Cleanliness:					
Overall conditions::	No (no temperature management)	Ok	No (no air conditioner) (No sufficient fridge space)	Yes/No (outsourced pharmacy)	Ok
Remarks:	2 cabinets at the patient level	Annual shipment: 48 pallets (2 large trucks) 36 pallets (2 small trucks)		Mixing methadone temporarily outsourced. Pharmacy does not meet hygiene requirement.	Use as free storage for the Center of Narcology at the AIDS Center

City	Jalal-Abad			
Disease and Reference #	Center for Sanitary surveillance - Malaria	TB Center	AIDS Center	Harm-reduction storage location at AIDS Center
Type of building	One-story brick house.	Independent from main.	1 house for lab testing including	Independent from main.




and location	Adjacent to other small hangars.	One-story brick house. Adjacent to other hangars.	fridges 1 cabinet in patient yard	One-story brick house. Adjacent to other small hangars.
Exterior conditions Envelope: Roof: Walls:	Ok Ok Ok	Ok Ok Ok	Ok Ok Ok	Ok Ok, just renovated Ok
In case of earthquake	??	??	??	??
Assessed by engineer	No	No	No	No
City	Jalal-Abad			
Disease and Reference #	Center for Sanitary Surveillance - Malaria	TB Center	AIDS Center	Harm-reduction storage location At AIDS Center
Setting:	Single-space room	1 large storage + 1 entrance corridor 2 fridges in patient yards	In laboratory, 5 fridges (2 broken) In patient yard, 1 fridge & 1 drug cabinet	Single-space small barn
Suitability:	Ok for insecticides	Too remote	Ok, proximity	Ok, proximity
Interior conditions Ceiling: Floor: Walls: Hermetic door: Windows: Sunlight control:	Ok Concrete Ok No Yes No	Traces of leaks Concrete Traces of leaks Not hermetic Yes but blocked -	Ok Linoleum Ok Yes Yes Yes	Ok Linoleum Ok Yes Yes Yes
Size (L x W x H) meters: Total available space: Maximum occupancy: Currently used: Inbound ship. schedule:	- - Not reached Almost none Once a year Yes	5x5x2,5 63m3 Reached Maximized Per quarter, limited space No	- - - Quarterly because lack of space in fridge No	2x6x3 36m3 Reached Maximized 6 months No



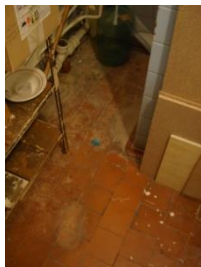









Size sufficient:					
Type of products:	Insecticides	FLD & SLD	FLD & SLD	FLD & SLD	Harm-reduction supplies
Refrigerated:	No	Not in storage, yes in clinic	Yes	Yes and no	No
Current # of pallets:	Already distributed	8/9 pallets	-	-	12 pallets
Electricity:	No	Yes	Yes		No
Sufficient lights:	-	No	-		No
Emergency generator:	-	No	-		No
Security Alarm:	-	-	-	-	-
Fire extinguisher:	No	No	No	No	No
Secured windows:	Yes	-	No	Yes	-
Secured door:	No	No	No	No	No
Temperature:	-				
Hygrometer:		No		No	No
Thermometer:		Yes		No	No
Logging:		No	No	No	No
Air conditioner:		No	No	No	No
Heater:		No	Yes	Yes	No
Source of odor/pest		Yes, deteriorated pipe	-	-	Yes, moisture
Shelving	-	Yes		Wood cabinet	Wood shelves
Wood or metal:		Wood shelves		Yes	-
Cabinet:		-		-	-
Spacing:		On the walls		-	On the walls
Levels:		3		-	4
Earthquake proof:		No		-	No
Directly on the floor:	-	Yes	-	-	Yes
Labeling:	-	Yes	No	No	No
None/mini/medium:		Mini			
First Expired, First Out:		No			
Registered staff:	-	Yes, manager is pharmacist	Yes, manager is pharmacist		-

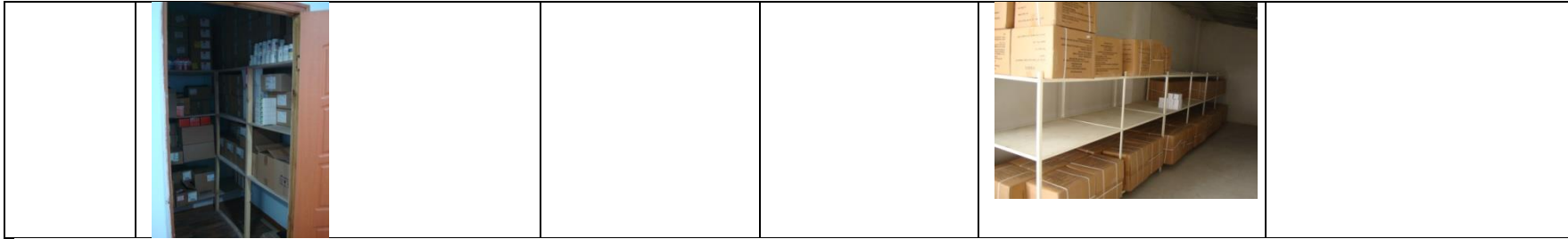
Inventory manage.t:	No	No	No	No
Inventory on hand:	Yes	Yes	Yes	Yes
Movements:				
Cleanliness:	Low	Low	Ok	Low
Fridges & freezers	No	Yes	Yes	No
Refrigerated compart.:		-	-	
Size sufficient:		2 house fridges	3 house fridges	1 house fridge
Fridges:		No	No	No
Size sufficient:		-	-	-
Freezers:		-	-	-
Inappropriate usage:				
SUMMARY				
Meeting standards for	Ok	Ok	Ok	Ok
Exterior conditions:	Ok	No	Ok	No
Interior conditions:	Ok	Ok	Ok	Ok
Suitability:	No	No	No	No
Sufficient size:	Ok	Ok	Ok	No
Electricity:	-	No	No	No
Security:	-	Ok	Ok	No
Temperature:	-	Ok	Ok	Ok
Shelving:	Ok	Ok	Ok	Ok
Labeling:	Low	Low	Ok	Low
Registered staff:				
Inventory manage.t:				
Cleanliness:				
Overall conditions::	Ok	No (insufficient space) (Insufficient fridge space)	Ok Insufficient fridge space)	No (Inside bulding not damaged, no temperature mamagement, insufficient space)
Remarks:	Transitory storage			

ANNEX D: PHOTOS – CENTRAL STORAGE IN BISHKEK AND VORONCOVKA

City	Bishkek		Voroncovka		Bishkek	
Disease and Reference #	TB SL#1	TB SL fridge TB lab fridges	TB SL#2	TB SL#3	Malaria SL fridge	Malaria SL Insecticides
	 	 	 	  	  	  






						
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City	Bishkek				
Disease and Reference #	HIV SL#1	HIV lab fridges HIV test freezers	Methadone SL	HR WH#1	HR WH#2
	   	 	 	 	 



ANNEX E: PHOTOS – REGIONAL AND LOCAL STORAGE LOCATIONS

City	Saruu	Karakol		
Disease and Reference #	TB Center for Adults	TB Center	Harm-reduction storage at TB Center	AIDS Center
	    	 	  	  

Osh				
AIDS Center	Malaria Center	TB Center	Methadone Center	Harm-reduction storage at AIDS Center
  	  	  	 	 

Jalal-Abad			
Center for sanitary surveillance - Malaria	TB Center	AIDS Center	Harm-reduction storage location at AIDS Center
	 		 

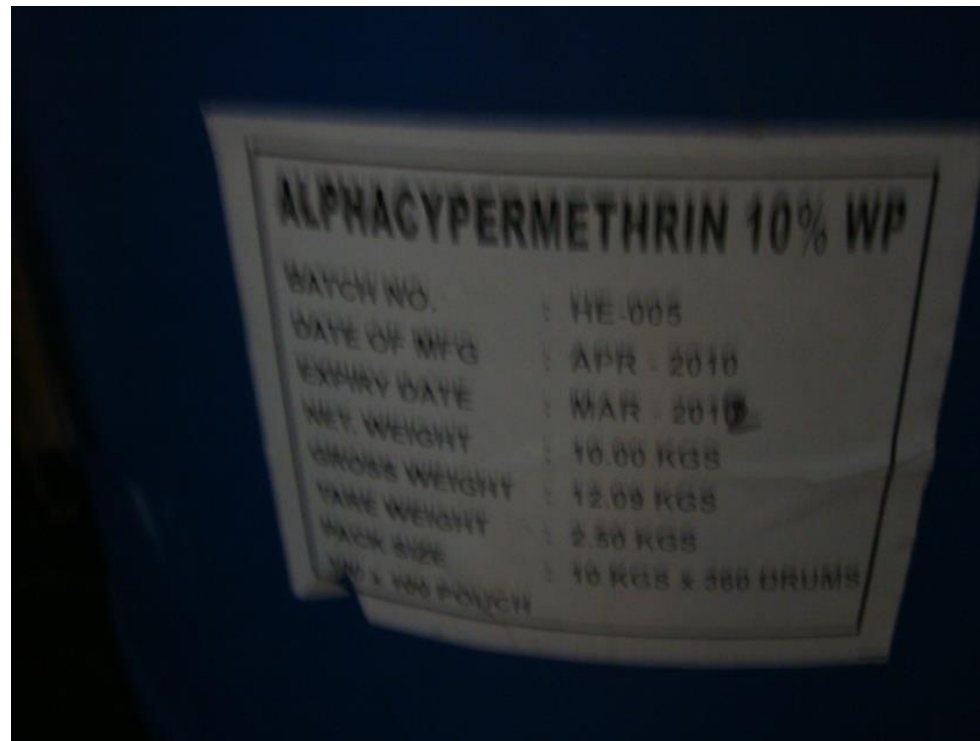


ANNEX F: PHOTOS – SAMPLES OF MISHANDLED BOXES

Product cleanliness	Mishandled products potentially compromised as a result	
 	 	 

ANNEX G: PHOTO – EVIDENCE OF IMPROPER CLEARANCE PROCESS (CENTRAL)

Expiration date corrected manually



ANNEX H: PHOTO – PROFESSIONAL FRIDGE AT OSH REGIONAL AIDS CENTER



ANNEX I: PHOTOS – FACILITY RUN BY THIRD-PARTY LOGISTICS FIRM UNI HELP





ANNEX J: DRAFT TERMS OF REFERENCE FOR THIRD-PARTY LOGISTICS INVITATION TO TENDER CONTRACT

ANNEX IV

TERMS OF REFERENCE

The following is a description of technical requirements for service suppliers of customs clearance, storage and inventory management, and distribution of goods purchased under The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) program.

Background and Client Information

The United Nations Development Programme (UNDP) Country Office in Kyrgyzstan has since 2011 been a Principal Recipient (PR) of GFATM grants allocated for the Central Asian republic. Implementation of such grants envisages procurement of large volumes of medicines, health and non-health products and other goods required by national partners to implement different interventions for prevention and control of the target pathologies.

Assignment

UNDP is seeking service providers for the following:

- Customs clearance of health and non-health products and their storage in a temporary storage warehouse (customs rooms) at the request of the UNDP;
- Storage of health and non-health products and inventory management; and,
- Distribution of medicines, health and non-health products to Kyrgyz regions.

It is expected that these services may be provided by different organizations; therefore, three (3) lots are outlined according to the services required.

Lot 1. Customs clearance services and safekeeping of goods in a temporary storage warehouse (customs room)

The Service Provider shall:

- Provide services for customs clearance of goods, subject to requests from the UNDP and provision of power of attorney and the necessary consignment packing documents.
- Receive permission from the National Drug Regulatory Authority (GNCL) for the import of health products at the request of the UNDP.
- Provide the technical means and personnel for unloading and storing goods in a temporary storage warehouse.
- Store drugs and medical commodities in the temporary storage warehouse in compliance with Ministry of Health rules and standards (temperature control, humidity adjustment) and WHO warehousing standards, until the end of customs clearance procedures.
- Ensure the safety of all goods in the temporary warehouse until such goods clear customs.
- Organize transmission of goods from the temporary storage warehouse to permanent storage facilities.
- Provide payment for customs clearance, entry permission and certification of goods according to national legislative requirements.

The Service Provider must demonstrate evidence of its capacity to conduct customs clearances and store goods in temporary warehouse facilities approved by the Republic of Kyrgyzstan. Necessary licenses and certifications should be enclosed.

Lot 2. Requirements for storage of health and non-health goods and inventory management.

Scope of work requirements for Service Provider:

- Storage of medicines and health products as well as non-health goods procured by the UNDP with GFATM funds until the moment of handover of goods to sub-recipients of GFATM grants. The minimum storage area required by the UNDP is [See Table 3] :
 - AIDS medicines: 30 Stock-Keeping Units (SKU), AIDS health products: 60 SKU,
 - TB medicines: 40 SKU, TB health products: 25 SKU,
 - Harm-reduction products: 12 SKU
- One-time: transport goods located in current central storage facilities in Bishkek into the central warehouse; monitor and control expiration dates of incoming stock.
- Timely acceptance and release of goods and products in accordance with written requests from the UNDP during working hours

(Monday to Friday, 8.00-17.00). Able to accept and discharge goods during weekends, on preliminary notice from the UNDP.

- Load and unload goods and materials delivered to storage facilities and dispatch goods from facilities, using appropriate machinery and human resources.
- Register and maintain records of material movements, in compliance with national and international standards of storage bookkeeping using appropriate software.
- Hold a minimum of three months' inventory at a given time.
- Submit reports in MS Excel format upon UNDP request containing lists of goods and materials in store, stock balances, expiry dates and all other relevant data.
- Submit reports in MS Excel format upon UNDP request indicating of past usage and all other relevant product details.
- Submit periodic incident reports on wastage, errors and near-misses and any other defects or mishaps.
- Arrange and manage effective system for dispensing goods and materials from storage facilities considering "First Expired, First Out" (FEFO) principles, informing UNDP about goods with short expiry dates (a minimum of 6 months in advance before the expiry date).
- Ensure safekeeping of goods and take out insurance for all goods and materials stored against any damage or loss.
- Accept and collaborate in quarterly audit by PR auditors.

Tender qualifications:

- The applicant organization presenting their tender should submit documents that verify the availability of storage facilities suitable for storing drugs and health products according to Ministry of Health of the Republic of Kyrgyzstan and WHO standards. The minimum storage area required by the UNDP is [See Table 3] :

The applicant organization that proposes such storage facilities should submit appropriate verifying documents that they hold the property rights on those facilities and documents showing that the facilities comply with all legislative and regulatory requirements of the Republic of Kyrgyzstan.

It should also prepare an agreement on the insurance of goods and materials in store.

In order to ensure effective storage and record-keeping of goods and materials, the applicant organization should possess software to register and keep track of goods and materials in store that complies with national and international standards.

The organization should have appropriate and certified human resources to ensure effective storage, loading and unloading, management and record-keeping of goods and materials. A list of personnel containing which services they provide in the storage facilities and their job descriptions must be provided.

The UNDP reserves the right to pay a visit to storage facilities run by applicant organizations and/or invite experts and auditors to evaluate said facilities to determine their compliance with the following requirements:

Requirements of storage facilities for drugs and health products:

1. Structure, size and equipment of storage facilities for medicines and health products should comply with all requirements of current legislation, legal acts and regulations (construction norms and regulations, recommendations on methods, normative intra-departmental documentation, and related rules and regulations) established by the Ministry of Health of the Republic of Kyrgyzstan and the WHO.

2. Structure, use and equipment of facilities should ensure safe storage of drugs and health products. Storage facilities should be planned in a way that will ensure:

- Safe storage;
- Earthquake and flood proofing;
- Proper storage procedures for medicines and health products; and,
- Rational management of medicines and health products.

Safety measures must be in place at storage facilities, including installation of lockable, sturdy doors; metal bars on windows, fire and burglar alarm systems, and fire extinguishers.

3. Atmospheric control of storage facilities should be meet standards set out for medicines and health products, including:

- Temperature regime appropriate for various categories of goods
- Appropriate humidity levels

Ideal ranges for temperature levels in:

- freezers, are from -25°C to – 10°C
- refrigerators: +2°C to +8°C (obligatory regime)
- “in a cool place”: +8°C to +15°C (obligatory regime)
- “room temperature”: +15°C to +25°C (obligatory regime)
- “above room temperature”: +25°C to + 30°C

To maintain temperature levels at between +2° and +8° C, it is necessary to have equipment for the maintenance of the cold chain, such as portable refrigerators and cool boxes during transportation.

To maintain appropriate temperature and humidity, storage facilities should be equipped with air conditioners and heating systems, thermometers and hydrometers. Facilities should also have adequate ventilation and air-circulation systems. Humidity should not be allowed to exceed 60%.

4. Should comply with hygiene norms and regulations established by the Ministry of Health of the Republic of Kyrgyzstan and the WHO.
5. Should comply with fire-safety regulations and be equipped with fire safety and fire-fighting equipment.
6. Should be equipped with appropriate physical means for storage, including the required number of shelves, tables and chairs, refrigerators and a metal safe.
7. Must have appropriate machinery for the movement of goods within storage facilities, for example, forklift or power-lift vehicles.

Lot 3. Distribution of goods from Bishkek to regional centers

The Services Provider shall:

- Deliver goods in a timely fashion to the indicated destination according to a presented distribution plan and the running schedule of the UNDP;
- Use in deliveries a means of transport that corresponds with the delivery of drugs and medical commodities, if the nature of goods demand such conditions;
- Inform the UNDP about the successful delivery of goods to the assigned destination and to present invoice, which confirms the receipt of goods by the recipient;
- Invoice the UNDP for payment of the transport of goods after successful delivery.
- Reimburse the cost of transported goods in case of their loss or damage (insurance of goods required).

The Service Provider should also indicate the time required to deliver goods to each destination and the period needed to organize the transport of goods as provided in the financial proposal form.